Research and Science Working Group

PARTICIPANTS: Troy Wood, Ron Martin, Sylvia Torti, Rosemary Pendelton, Danny Summers , Dave Tate, Lara Dohrenwend, Kelly Memmott, Debbie Crisp, Jim Free, Amber Hughes

OVERARCHING NEED: There is an Overarching Need for coordination of data collection, methodology, clarity of questions to be answered

OVERARCHING SOLUTION: Coordination of effort followed by experimental design that allows for comparison among populations, different phenotypes and ability to cultivate species and ecotypes

1) What are life histories of species-basic growth and form? What is magnitude of differences within species?
    a. What data should be collected?
    b. Which traits of species?
2) What is adaptability of different collections/accessions?
    a. Survival
    b. Persistent survival
    c. Biomass, height, crown
3) What are genetic differences of different species across range?
4) Labor is an issue
    a. Plant Center
    b. SUU
    c. University of Utah (Bennion Center, Environmental Studies, Biology)
    d. Escalante Monument-project by project could be developed
    e. ERI interns? NAU
5) Exclosure plots that exist already could be used- need a list with site descriptions and some recommendation about what to grow, soil and precip parameters
6) What end data are necessary and relevant to end user (restorers)

HOW TO SEED?

Methodology for different seeding or plugging regimes. How many seeds/area/how? Seeding rates, scarification needs, success rates predicted for broadcast, is seed covered, torched/fire treatment prior to seed.

What are basic germination requirements?

7) How to focus species for rigorous research?
    a. Great Basin has criteria; should we use their criteria? How to avoid genetic pollution?
    b. Even using Great Basin criteria, there are still >75 spp, how to focus?
        i. Use Scott's list
        ii. Jim has good ideas from his work
8) Where do we sort out where we want different species to go?
    a. Which sites should be used for grow out?

    b. Which sites should be used for research?
    c. Jim Free has 9 species that are ready to go through a trial for seed increase.
9) What are gaps in dataset?
10) How do we collect data from past studies that Troy and others can call upon?
    a. Troy and Kelly will think through development of database

What's plan for making this happen after today?

Develop a 2011 work plan

There are people willing to take on boutique/difficult species

SOLUTIONS:

Consistent Experimental Design

Listing traits that you want to identify

Methods for standardizing measurement of traits

Utah Watershed Restoration Initiative has a database